

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): An inline phase shifter comprising:

a waveguide having at least one electrically conducting surface and a
waveguide path; and
at least one electromechanical means for changing a physical dimension of ~~the~~
said electrically conducting surface along the waveguide path to phase shift a signal which
travels along the waveguide path.

Claim 2 (original): The inline phase shifter according to claim 1, wherein the
electromechanical means is a set of first and second electromechanical devices arranged at a
point along the waveguide path and other sets of electromechanical means are positioned at
other points along the waveguide path.

Claim 3 (original): The inline phase shifter according to claim 1, comprising:

a first surface of the waveguide parallel to a second surface of the waveguide;
a first electromechanical means positioned adjacent to the first surface; and
a second electromechanical means positioned adjacent to the second surface.

Claim 4 (original): The inline phase shifter according to claim 3, wherein the first electro-mechanical means has a first shutter that can move toward the second surface and the second electro-mechanical means has a second shutter that can move toward the first surface.

Claim 5 (original): The inline phase shifter according to claim 4, wherein there is an opening normal to the waveguide path between the first and second electromechanical devices.

Claim 6 (original): The inline phase shifter according to claim 5, wherein the first and second electromechanical devices are positioned within the waveguide.

Claim 7 (original): A radar system having an inline phase shifter according to claim 1, wherein the inline phase shifter is connected to a radar transceiver for phase shifting one of transmitted and received signals.

Claim 8 (currently amended) A method for phase shifting a signal comprising:
changing physical dimensions of at least one electrically conducting surface
along a waveguide path by actuating an electromechanical device; and
inputting a signal along the waveguide path to output a phase shifted signal.

Claim 9 (original): The method for phase shifting a signal according to claim 8, comprising:

sending an actuation signal to the electromechanical device positioned adjacent to a waveguide containing the waveguide path.

Claim 10 (currently amended): An inline phase shifter comprising:

a waveguide having conducting surfaces along a waveguide path of the waveguide; and

a **first** plurality of electromechanical devices positioned serially along the waveguide path sufficiently adjacent to the waveguide path to change a physical dimension of at least one of the conducting surfaces along the waveguide path upon actuation of at least one of the plurality of electromechanical devices.

Claim 11 (currently amended): ~~The~~ An inline phase shifter ~~according to claim 10,~~ comprising:

a waveguide having a waveguide path; and

a plurality of electromechanical devices positioned serially along the waveguide path sufficiently adjacent to the waveguide path to change a physical dimension of the waveguide path upon actuation of at least one of the plurality of electromechanical devices, wherein the **first** plurality of electro-mechanical devices is positioned entirely within the waveguide.

Claim 12 (currently amended): An inline phase shifter comprising:

a waveguide having a waveguide path; and

at least one ~~of a~~ micro-electromechanical device ~~and a piezoelectric device~~ positioned sufficiently adjacent to the waveguide path to change a ~~physical dimension of size~~ of an electrically conducting area of the waveguide along the waveguide path upon actuation of the at least one micro-electromechanical device.

Claim 13 (currently amended): The inline phase shifter according to claim 12, ~~comprising~~; wherein a said waveguide ~~having~~ comprises a first surface and a second surface parallel to the waveguide path; and includes a first said micro-electromechanical device positioned adjacent to the first surface; and a second said micro-electromechanical device positioned adjacent to the second surface.

Claim 14 (currently amended): The inline phase shifter according to claim 13, wherein the first and second micro-electromechanical devices are a set of devices arranged at a point along the waveguide path, and other sets of devices are positioned at other points along the waveguide path.

Claim 15 (currently amended): The inline phase shifter according to claim 13, wherein the first micro-electromechanical device has a first shutter that can unroll toward the second surface and the second micro-electromechanical device has a second shutter that can unroll toward the first surface.

Claim 16 (original): The inline phase shifter according to claim 15, wherein there is an opening normal to the waveguide path between the first and second shutters.

Claim 17 (currently amended): The inline phase shifter according to claim 13, wherein the first and second micro-electromechanical devices are positioned within the waveguide.

Claim 18 (currently amended): The inline phase shifter according to claim 12, ~~comprising:~~ wherein a said waveguide ~~having comprises:~~

a first surface and a second surface parallel to the waveguide path;

a first array of said micro-electromechanical devices positioned adjacent to the first surface; and

a second array of said micro-electromechanical devices positioned adjacent to the second surface; ~~and,~~ wherein devices of the first devices array have ~~first shutters~~ a shutter that can move toward the second surface, and devices of the second devices array have ~~second shutters~~ a shutter that can move toward the first surface.

Claim 19 (currently amended): The inline phase shifter according to claim 18, wherein there is an opening normal to the waveguide path between the first and second arrays of micro-electromechanical devices.

Claim 20 (currently amended): The inline phase shifter according to claim 19, wherein the first and second arrays are a set of said micro-electromechanical devices arranged at a

point along the waveguide path and other sets of said micro-electromechanical devices are respectively positioned at other points along the waveguide path.

Claim 21 (new): The inline phase shifter according to claim 1, wherein said at least one electromechanical means comprises a piezoelectric element.

Claim 22 (new): The inline phase shifter of claim 1, wherein said changing a physical dimension of said electrically conducting surface along the waveguide path comprises changing a dimension of an electrically conducting wall within the waveguide.

Claim 23 (new): The inline phase shifter according to claim 1, wherein said at least one electromechanical means is positioned entirely within the waveguide.

Claim 24 (new): The inline phase shifter according to claim 1, wherein said at least one electromechanical means comprises an electrostatically actuated shutter.

Claim 25 (new): The inline phase shifter according to claim 1, wherein said at least one electromechanical means comprises a micro-electromechanical device.

Claim 26 (new): The inline phase shifter according to claim 10, wherein each of said plurality of electromechanical devices comprises a piezoelectric element.

Claim 27 (new): The inline phase shifter according to claim 10, wherein said change in a physical dimension of at least one of the conducting surfaces comprises a change in a dimension of an electrically conducting wall.

Claim 28 (new): The inline phase shifter according to claim 10, wherein each of said plurality of electromechanical devices is positioned entirely within the waveguide.

Claim 29 (new): The inline phase shifter according to claim 10, wherein each of said plurality of electromechanical devices comprises an electrostatically actuated shutter.

Claim 30 (new): The inline phase shifter according to claim 10, wherein each of said plurality of electromechanical devices comprises a micro-electromechanical device.

Claim 31 (new): The inline phase shifter according to claim 12, wherein said at least one micro-electromechanical device comprises a piezoelectric element.

Claim 32 (new): The inline phase shifter according to claim 12, wherein said change in the electrically conducting area of the waveguide involves a change in a dimension of a conducting wall in the waveguide.

Claim 33 (new): The inline phase shifter according to claim 12, wherein said at least one micro-electromechanical device is positioned entirely within the waveguide.

Claim 34 (new): The inline phase shifter according to claim 12, wherein said at least one micro-electromechanical device comprises an electrostatically actuated shutter.